

FLOOD MITIGATION WORKSHOP

JULY 20, 2017

Participant Comments

Exercise 1: Current Drainage Conditions

During storm events, what is currently working well?

- Helping push the water runoff downhill (south.)
- Downstream (28th St.) the mitigation has cleared up & opened up the 2-mile drainage which clears pretty easily.
- Most storm drains.
- Existing creek has sufficient capacity & more since the flood/storm event.
- Creek handles stormwater well.
- In 2013, the area where mitigation efforts were made really helped. The city can take further judicious action to mitigate floods.
- Hard to assess since we have had smaller storm events.
 - Is North Boulder Park intended as a flood collection area or is this just an outcome?
- Except for 2013, seems to generally work ok.
- Not so much in my area.
- Ecological processes, low impact development, green infrastructure, wetlands, healthy riparian areas.
- No surface water on our property.
- Water flowed down 19th into sewers.
- Only surface water in lower areas in crawlspace.
- Floodwaters followed the 2D mapping (mostly.)
- Broadway drainage Iris → Elder.

What is not currently working well with storm drainage?

- Too much water doesn't run off fast enough (when ground is soaked.)
- Old drainages clogged with trees & brush.
- Unimproved streetscapes.
- Unanticipated storm/sanitary interconnect.
- Culverts under Linden, Kalmia, Juniper, Broadway are undersized.
- Broadway & Iris, Linden & @ Mile – underpass with pedestrian path & flood control would be brilliant.
- Flooding even with light rain at south end of North Boulder Park.
- Sump pumps in neighbor houses constantly pump into alleyway.
- Not drainage with 17" of rain in 3 days.
 - You might encourage people to keep their own storm drains clear of stuff - if you only check some of these once a year – for their own benefit.
- Iris & Broadway culvert not working well.
- Sewer backup issues.

- Water backs up at 4th & Linden and comes down the bike path – turning that into a river. A larger culvert along Two-Mile Creek at Wonderland might help.
- 2013 water came across Ideal parking into our underground parking – no change for this!
- Culvert at Iris and Broadway is blocked by a lot of big debris – causing a pond with standing water → mosquito breeding. Also worried about people doing their own mitigation causing issues for neighbors in the next flood. Needs to be done on a citywide basis.
- Impervious pavement, low floor to area ratios especially for commercial development. Big parking lots, encroachment on streams & wetlands.
- Some water flowed down Floral.
- Culvert at Iris & Broadway is not cleaned out this standing water during the flood shot up two stories at intersection on west side.

Exercise 2: Rank Study Objectives

- Vulnerable population (schools, nursing homes, etc.)
 - Yes to residential uses. Not to public (part time) uses.
- Protection of cultural resources.
 - Open space at Linden should be left as is! Kalmia should not be torn up!
- Life safety (high hazard) mitigation.
 - Reduce high hazard by placing culvert from hospital BCH east.
 - Protecting life and limb is most important along with
- Recreation opportunities
 - Free the floodplains.
- Operation and maintenance cost savings
 - Increase water rates slightly to mitigate damage.
 - Be effective but spend what is necessary.
- Minimize City construction costs.
 - This huge project is overkill!
 - Reduce damage potential.
- Habitat protection and restoration.
 - Do not disrupt our lives with a huge project for an unlikely future event!
 - Wetlands & riparian areas, fluvial geomorphology.

Exercise 3: Rate Flood Mitigation Strategies

- **What is your opinion of each mitigation strategy?**
 - Detention and/or Sediment Capture Facility
 - Slow the damage before it reaches population.
 - Open Channel and Culvert Improvements
 - I like a combination of these two (plus underground piped storm drainage system) based on initial cost AND cost of maintenance for clearing both during storm event.
 - Roadway Conveyance

- See a danger to an unwilling populace.
 - Already happens.
 - Detention and/or sediment capture facility; open channel and culvert improvements; and underground piped storm drainage system convey more water, expensive.

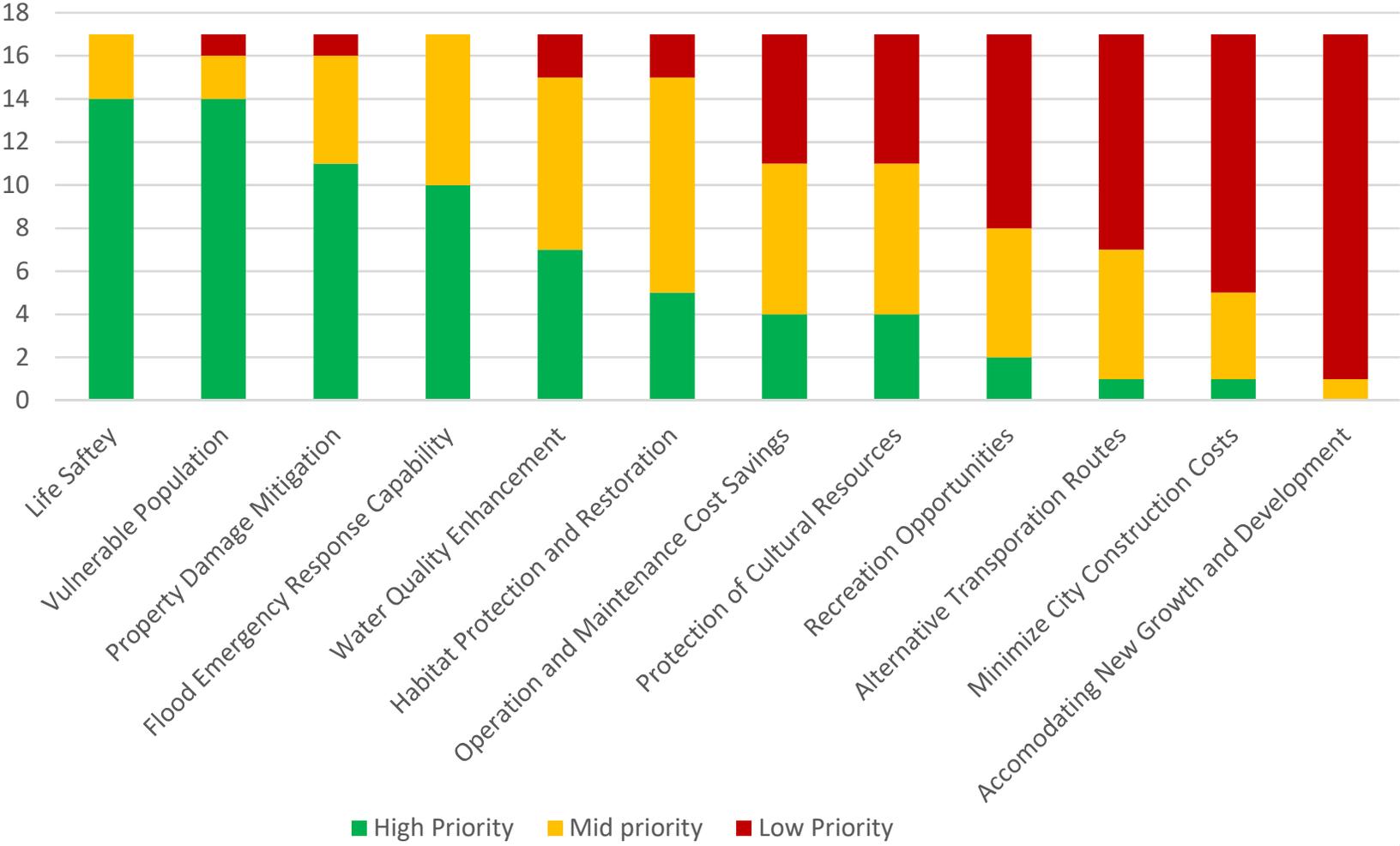
- **Comments on mitigation strategies:**
 - We need to contain sediment so it does not plug storm system.
 - Take advantage of demolition at hospital when the development happens. Use different solutions to mitigate as much flooding as possible – open culvert where available.
 - Street drainage.
 - Box culvert.
 - Make as many improvements as financially possible.
 - Kalmia being rebuilt into a sunken culvert would be unacceptable to Kalmia residents & other neighbors.
 - Combination: Larger culverts under Linden, Kalmia, Juniper, Broadway. Focus flooding on roads/storm drains. Pedestrian underpass under Broadway.
 - For 2-Mile, all strategies must be employed. Detention at Linden & Lake Briar, open channel improvements to Broadway & Iris, underground drainage to Iris & 16th, roadway conveyance from Iris to Elmers.
 - I am both confident in the city and consultancy to solve the problem and willing to do all in my power to support.
 - Suggest open channel from Foothills Elementary, under Broadway, along north of Iris at county buildings, past ballpark, then go underground on Iris as roadway conveyance, would also include bike/pedestrian.
 - Should layer these and use as most appropriate.
 - Would immediately increase detention/sediment capture facilities.
 - Open channel on Alpine!
 - Detention ponds have to be really big – how practical?
 - 2-mile Creek need to be utilized – see below.*
 - Restoring ecological processes, wetlands, healthy riparian areas goes a long ways with multiple benefits at lower costs.
 - Open conveyance sounds best but land is not available.
 - Combination makes sense. Open channels could be deeper.
 - Roadway conveyance makes sense in many locations.
 - Researched other cities should carry a great deal of influence.
 - Does it have to be “one size fits all?” or can we use different strategies for different neighborhoods?

- **What are the biggest challenges you can identify for drainage improvements in your neighborhood?**
 - The biggest challenge is to not overdo it. concentrate on preventing blockages in existing system. Our neighborhood is already besieged by construction. A huge “mitigation” project will be very unwelcome.

- No improvement necessary on property.
 - Convincing the community to take the necessary integrated approach. Open channel → culvert → roadway. For 2-mile, all will be required.
 - New construction – depth of foundation/basements.
 - Changes in individual property impact community solution.
 - Sprinkler systems.
 - I bought all new gutters & extension for downspouts.
 - Biggest challenge is trying to mitigate the flow down 4th St. along the bike path between Linden & Kalmia. The roadway conveyance map (the green lines) would make things worse. It seems like the main diversion should be down Linden, not 4th St. & Kalmia.
 - Parking lots west of us will always make us vulnerable.
 - With the redevelopment of the old hospital, there is a real chance to bring back Goose Creek west of Broadway. This was extremely popular at the redevelopment workshop favoring more natural drainage patterns.
 - Existing housing.
 - Access to land to build open channels.
 - Please pick the one which will have the greatest impact on the current floodplain map. Without understand how each strategy might change the map, our opinions are out of context.
 - Broadway higher than most property east of it.
- **Flood Mitigation Workshop Feedback:**
 - I look forward to seeing the proposals.
 - The individual table conversations worked well to get people warmed up to the topic, but it seemed most productive when the entire group (one at a time) spoke with a presenter so everyone could hear and respond to each idea or concern.
 - One suggestion: opening statement really underscoring opinion and wishes of stakeholders is the goal. A very few people questioned the goal. It's clear you care what we think.
 - Our staff (#2) – Robby Glenn was helpful & clear.
 - More information on cost estimates & budget for doing reality check/
 - Next phase – invite same people, provide 2-3 options (by area) & ask for input then.
 - Briefness of many slides.
 - Assistance to questions.
 - *I was a little surprised at the format. It's time for key people to have opinions, but I was expecting a little more concrete/scientific information about the city's plans and thoughts about the various mitigation options. It seems to me that certain options are more appropriate than others in certain situations and I would leave that up to the experts as long as something is done.
 - Well done!
 - There was enough time for people to ask questions and give comments.
 - With only a small bit of information, you are asking us to rank various options. I fear you will overvalue this input. I think we have to trust expertise and experience over (potentially) uninformed opinion. I know public input is important – but opinions passed on only surface understanding of the complexity of issues is dangerous.

Flood Mitigation Workshop - Goose and Twomile Canyon Creek

Rankings of Objectives



Mitigation Strategy Ratings

Goose and Twomile Canyon Creek

